

WIDE-RANGE TYPE THERMISTOR ELEMENT AND  
METHOD OF PRODUCING THE SAME

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ABSTRACT OF THE DISCLOSURE

10       The thermistor element of the present invention is  
composed of a mixed sintered body  $aM^1M^2O_3 \cdot bY_2O_3$  of a  
composition  $M^1M^2O_3$  (wherein  $M^1$  is Y, and  $M^2$  is at least one  
element selected from the elements such as Cr, Mn, Ti,  
etc.) as a perovskite compound and  $Y_2O_3$ , wherein molar  
15       fractions a and b satisfy the relations  $0.05 \leq a < 1.0$ ,  $0$   
 $< b \leq 0.95$  and  $a + b = 1$ . Another wide-range type  
thermistor element of the present invention is composed of  
a perovskite compound  $M^1(M^2M^3)O_3$ , wherein  $M^1$  is at least one  
element selected from the elements of the groups II and  
20       IIIA excluding La in the Periodic Table, and each of  $M^2$  and  
 $M^3$  is at least one element selected from the elements of  
the groups IIB, IIIB, IVA, VA, VIA, VIIA and VIII. a and  
b satisfy the relations  $a + b = 1$  and  $0 < b < 0.1$ , where a  
is a molar fraction of  $M^2$  and b is a molar fraction of  $M^3$   
25       in  $M^1(M^2M^3)O_3$ .

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